

## Linda J. Baker, R.G., L.H.G. Principal



### Education and Credentials

M.S., Sedimentary Geology,  
Oregon State University,  
Corvallis, Oregon, 1988

B.S., Geology, Allegheny College,  
Meadville, Pennsylvania, 1982

Registered Professional Geologist,  
Oregon (License No. G1205)

Licensed Geologist and  
Hydrogeologist, Washington  
(License No. 2140)

### Continuing Education and Training

Hazardous Waste Operations and  
Emergency Response 40-Hour  
Certification (1987; refreshers  
annually through 2008)

Hazardous Waste Operations  
Management and Supervisor  
8-Hour Certification (1992)

ASTM Risk-Based Corrective  
Action Training (June 1997)

Geochemical Evaluations of  
Metals in Environmental Media,  
Sixth International Conference on  
Remediation of Contaminated  
Sediments (February 2011)

Source Control, Stormwater &  
Sediment, Environmental Law  
Education Center, Portland,  
Oregon (January 2012)

### Professional Affiliations

National Ground Water  
Association

## Professional Profile

Ms. Linda Baker is a hydrogeologist with 33 years of experience in environmental site characterization, compliance, remediation, and allocation work. Ms. Baker has addressed complex contaminant release and cleanup issues at ports, refineries, railyards, wood-treating facilities, steel mills, and other manufacturing facilities. She has worked on upland and sediment sites that include fresh and marine waters. Ms. Baker has taken projects from investigation and risk assessment through feasibility study, remedial action, and closure under the federal CERCLA and RCRA programs, as well as state programs in Washington, Oregon, and Idaho. She has facilitated brownfield redevelopment of a former railyard and supported remedial work at numerous public parks. In addition, Ms. Baker has provided expert witness testimony and supported legal negotiations associated with remedial activities and allocation of environmental liabilities.

## Relevant Experience

### State and Federal Remedial Investigations and Feasibility Studies, RCRA Facility Investigations, and Source Control Evaluations

*Steel Mill, Portland, Oregon*—Hydrogeologist and project manager for groundwater, stormwater, and bank-erosion source control evaluations addressing petroleum, metals, and PCB impacts at an active steel mill. Groundwater investigations and fate and transport evaluations demonstrated no further action was necessary for groundwater. Stormwater treatment systems were installed and evaluated. Options for riverbank stabilization were developed and a stabilization remedy implemented. Upland site closure was pursued via risk assessment. Work also included review of CERCLA RI/FS for adjacent river sediments, oversight of predesign investigation work, and detailed evaluation of the Record of Decision.

*Sediment Site, Port Angeles, Washington*—Principal in charge providing technical and strategic support to a five-party potentially liable party group supporting preparation of the RI/FS. The nature and extent of sediment impacts were characterized and remedial alternatives including capping, dredging, and natural recovery were evaluated for the 1,200-acre active harbor under the state regulatory



program. The state selected a cost effective remedy that met the needs of tribal, city, port, and industrial stakeholders.

**Former Railyard, Portland, Oregon**—Hydrogeologist and project manager for an RI/FS focused on brownfield redevelopment. The work included characterization of soil and groundwater conditions and assessment of oil distribution and recoverability. Sewer migration pathways were evaluated in detail with a consideration of the potential for impacts to the nearby waterway. Interim actions included an oil recovery system, lead stabilization/removal and petroleum-impacted soil removals totaling over 15,000 cubic yards. The work also involved interfacing with community stakeholders and property owner to identify a workable remedial action for redevelopment of the former railyard into an urban residential neighborhood.

**Former Steam Plant, Seattle, Washington**—Hydrogeologist and principal in charge providing technical and strategic support to a multi-party PRP group for an RI/FS under the state cleanup program. Work includes source control issues related to PCB, PAH, and solvent pathways from the steam plant and adjacent air field to a Superfund sediment site. Work also included completion of groundwater compliance monitoring demonstrating an interim cleanup was effective.

**Wood Treating Facility RI/FS, Bellingham, Washington**—Hydrogeologist and project manager serving as property owner's technical reviewer for an EPA-lead RI/FS and engineering evaluation/cost analysis at an active wood treating facility and adjacent park property impacted with creosote and pentachlorophenol. Helped facilitate decision to proceed with a cost-effective and protective containment-focused remedy.

**Manufactured Gas Plant RI/FS, Eugene, Oregon**—Hydrogeologist and project manager overseeing the performing party and supporting project scoping, strategy, and document revision. The RI/FS work included assessment of upland and adjacent river conditions and interim removal actions. Focused performing party on a cost-effective approach and protective containment remedy.

**Wood Treating Facility RI/FS, St. Maries, Idaho**—Hydrogeologist and project manager leading RI/FS at a former wood treating facility. Work included assessment of upland and adjacent river conditions, fate and transport evaluations, and evaluation of potential remedial actions for organic contamination. Work was completed on a compressed timeline to facilitate insurance settlement and liability transfer.

**Wood Treating Facility RI/FS, Tacoma, Washington**—Hydrogeologist and project manager leading RI/FS at an active wood treating facility. Completed interim actions for soil (removals and capping) and groundwater (horizontal drain). Identified a cost-effective and protective remedial action for organic and metals contamination.

**Wood Treating Facility RI/FS, Seattle, Washington**—Hydrogeologist and project manager responsible for implementation of remedial investigation activities, interim action scoping, and feasibility study preparation. The work included development of alternative concentration limits



for hydrocarbon, pentachlorophenol, and metals. The RI/FS was completed on a strict timeline to facilitate redevelopment of the property into an active port terminal.

**Refinery RFI and RI/FS Activities, Blaine, Washington**—Hydrogeologist and project manager for 20 years of subsurface remedial action activities at an active refinery. Initial work included completion of an RFI addressing numerous solid water management units. The hydrogeology of the facility was defined, generating baseline information to facilitate future investigations. Over the subsequent years, led investigation and cleanup of more than 30 release sites within the refinery including above-ground tanks and underground storage tanks, releases from sewers, pipelines, and other equipment.

**Former Manufacturing Facility, Seattle, Washington**—Hydrogeologist and project manager for RI/FS of a former industrial facility with solvent releases. Investigations were completed to define the extent of the downgradient plume, evaluate aquifer conditions, assess natural attenuation characteristics, define a remedial action approach, and negotiate a cleanup action plan. Interim action work included long-term operation of a hydraulic containment system.

**Wood Treating Facility, Paradise, Montana**—Hydrogeologist responsible for completion of an RFI and interim product removal at a former creosote tie treating plant. Work included evaluation of creosote distribution and characterization of groundwater quality in multiple aquifers for operational areas, tank farms, and waste disposal areas.

**Various Industrial Facilities, California, Montana, Oregon, Washington**—Led field investigations, defining the nature and extent of contamination, fate and transport evaluations, and supporting interim actions at wood treating and other manufacturing facilities, manufactured gas plant, railyard, and industrial sites.

### **Remedial Action Negotiation, Implementation, and Long-Term Monitoring**

**Former Smelter, Seattle, Washington**—Hydrogeologist and project manager responsible for preparation and negotiation of a long-term monitoring program for the Harbor Island Soil and Groundwater Operable Unit. Implementation of the plan included generating salinity profiles, monitoring well installation, and ongoing groundwater monitoring. Exceedances of cleanup goals and the performance of institutional controls have been addressed and groundwater conditions are considered protective.

**Wood-Treating Facility, Eugene, Oregon**—Project manager for implementation of remedial action including product recovery and groundwater recovery/containment. Negotiated an optimized remedial action plan and evaluated potential acceptable locations of downgradient groundwater monitoring wells using MODFLOW. Responsible for overseeing groundwater long-term monitoring program

**Wood Treating Facility, Bellingham, Washington**—Project manager responsible for negotiating and implementing a containment remedy, which included paving, gravel capping, stormwater redesign and operations and maintenance work. The cap was then modified to allow for on-



property consolidation of contaminated soils from the adjacent park property. Continuing to oversee long-term groundwater monitoring to demonstrate the remedy effectiveness.

**Wood Treating Facility, Seattle, Washington**—Project manager responsible for long-term monitoring of a containment remedial action. Evaluated the significance of groundwater quality below and in front of a barrier wall, assessed changes in post-barrier and capping groundwater flow, and demonstrated that a barrier wall was sufficiently protective after a major earthquake. Drafted first 5-year review document.

**Stringfellow Acid Pits, Glen Avon, California**—Hydrogeologist responsible for implementing a large-scale monitoring program including the source pit, down-canyon, and nearby community areas.

**Gas Station, Bellflower, California**—Project geologist responsible for installation, monitoring, and optimizing performance of a vapor extraction system for a gasoline spill.

### **RCRA Compliance**

**Refinery, Blaine, Washington**—Completed long-term monitoring of hazardous waste facilities, including land treatment units and basins, and negotiated monitoring revisions. Revised the hazardous waste permit to reduce monitoring frequency and duration. The work included clean closure of several of the land treatment facilities and basins and final closure of the remaining treatment facility.

**Refinery, Anacortes, Washington**—Completed long-term monitoring of a land treatment facility closure and revised the hazardous waste permit to include reduced monitoring frequency and duration. Addressed soil porewater and groundwater exceedances to allow for continued land treatment facility use.

**Wood Treating Facility, Bellingham, Washington**—Completed closure cost estimate and plan for drip pad closure. Addressed a notice of violation and negotiated and completed clean closure activities for two hazardous waste management units via cleaning and closure of another one via removal.

**Wood Treating Facility, Tacoma, Washington**—Addressed notice-of-violation issues and supported design and monitoring program for a drip pad inspections.

### **Nonhazardous Landfills and Disposal**

**Solid Waste Assessment Test, Compton Landfill, California**—Project hydrogeologist for well installation sampling and evaluation of landfill to demonstrate no adverse impacts.

**Nonhazardous Land Treatment Facility and Landfill, Blaine, Washington**—Project hydrogeologist responsible for developing and implementing the monitoring program for the land treatment facility.



## **Litigation Support, Insurance Cost-Recovery, Allocation and Testimony**

*Sediment Cleanup Allocation Support, Port Angeles, Washington*—Principal in charge overseeing allocation of sediment cleanup and natural resource damages on behalf of a public entity. Supported clients with development of allocation strategies, and review of attorney-directed documents and rebuttals from other parties.

*Litigation Support and Expert Witness, Former Railyard, Portland, Oregon*—Provided support on remedial redevelopment scenarios and associated costs for settlement negotiations with two different parties related to railyard cleanup and redevelopment. Provided testimony on the nature and extent and timing, fate, and transport of releases of Bunker C and diesel fuels at a former fueling area and the impacts on redevelopment.

*Litigation Support, Wood Treating Facility, St. Maries, Idaho*—Reviewed investigation plans, activities, and investigation results of nonperforming responsible party. Technically supported settlement discussions between the performing party, non-performing party and insurance company regarding the extent of contamination and remedial costs. Ultimately resolved with liability transfer.

*Litigation Support, Wood Treating Facility, Bellingham, Washington*—Analyzed previously completed remedial investigation work and costs and projected remedial costs to support of a favorable settlement with EPA and insurance companies.

*Manufactured Gas Plant, Eugene, Oregon*—Provided allocation support for multi-party cleanup and insurance cost recovery.

## **Publications and Presentations**

Blischke, E., S. Coffey, S. Sheldrake, J. Kern, H. Cumberland, and L. Baker. 2019. Measuring success in cleanup: Portland Harbor baseline sampling design. Tenth International Conference on Remediation and Management of Contaminated Sediments, New Orleans, LA. February.

Baker, L., D. Livermore, A. Crowley, D. Gilpin, and T. Slater. 2017. The many faces of source control in the Pacific Northwest. Ninth International Conference on Remediation and Management of Contaminated Sediments, New Orleans, LA. January.

Murarka, I., D. Baker, L. Baker, L. Lee, and D. Mauro. 1999. Distribution of tar and polycyclic aromatic hydrocarbons in the subsurface at a former MGP site. EPRI, Palo Alto, CA and Puget Sound Energy, Seattle, WA, TR-114174.

Baker, L. 1995. The hydrostratigraphy of the Bellingham Drift and associated deposits, Blaine, Washington. Abstracts from the 1st Symposium on the Hydrogeology of Washington State. Washington State Department of Ecology.

